## **RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	09/868.533
Source:	1FWO
Date Processed by STIC:	2/8/06

## ENTERED



**IFWO** 

RAW SEQUENCE LISTING DATE: 02/08/2006
PATENT APPLICATION: US/09/868,533 TIME: 12:04:20

Input Set : E:\pg3600 Seq Listing.txt
Output Set: N:\CRF4\02082006\1868533.raw

```
4 <110> APPLICANT: Glaxo Group Limited
      5
              Farrow, Stuart N
      6
              Kaptein, Allard
      7
              Kitson, Jeremy DA
      8
              Winder, Alison J
     10 <120> TITLE OF INVENTION: Novel Ligand
     12 <130> FILE REFERENCE: PG3600
C--> 14 <140> CURRENT APPLICATION NUMBER: US/09/868,533
C--> 15 <141> CURRENT FILING DATE: 2001-06-19
     17 <150> PRIOR APPLICATION NUMBER: GB 9828628.9
     18 <151> PRIOR FILING DATE: 1998-12-23
     20 <160> NUMBER OF SEQ ID NOS: 8
     22 <170> SOFTWARE: PatentIn Ver. 2.1
     24 <210> SEO ID NO: 1
     25 <211> LENGTH: 153
    26 <212> TYPE: PRT
     27 <213> ORGANISM: Homo sapiens
     29 <400> SEQUENCE: 1
     30 Arg Ala Val Gln Gly Pro Glu Glu Thr Val Thr Gln Asp Cys Leu Gln
                                              10
     33 Leu Ile Ala Asp Ser Glu Thr Pro Thr Ile Gln Lys Gly Ser Tyr Thr
                     20
                                          25
     36 Phe Val Pro Trp Leu Leu Ser Phe Lys Arg Gly Ser Ala Leu Glu Glu
     39 Lys Glu Asn Lys Ile Leu Val Lys Glu Thr Gly Tyr Phe Phe Ile Tyr
     40
             50
                                 55
     42 Gly Gln Val Leu Tyr Thr Asp Lys Thr Tyr Ala Met Gly His Leu Ile
                             70
     45 Gln Arg Lys Lys Val His Val Phe Gly Asp Glu Leu Ser Leu Val Thr
                                              90
     46
                         85
     48 Leu Phe Arg Cys Ile Gln Asn Met Pro Glu Thr Leu Pro Asn Asn Ser
     49
                    100
                                         105
     51 Cys Tyr Ser Ala Gly Ile Ala Lys Leu Glu Glu Gly Asp Gly Leu Gln
                115
                                    120
     54 Leu Ala Ile Pro Arg Glu Asn Ala Gln Ile Ser Leu Asp Gly Asp Val
                                135
     57 Thr Phe Phe Gly Ala Leu Lys Leu Leu
     58 145
     60 <210> SEQ ID NO: 2
     61 <211> LENGTH: 285
     62 <212> TYPE: PRT
     63 <213> ORGANISM: Homo sapiens
     65 <400> SEQUENCE: 2
```

Input Set : E:\pg3600 Seq Listing.txt
Output Set: N:\CRF4\02082006\1868533.raw

66 Met Asp Asp Ser Thr Glu Arg Glu Gln Ser Arg Leu Thr Ser Cys Leu 67 1 15 10 69 Lys Lys Arg Glu Glu Met Lys Leu Lys Glu Cys Val Ser Ile Leu Pro 72 Arg Lys Glu Ser Pro Ser Val Arg Ser Ser Lys Asp Gly Lys Leu Leu 35 75 Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser Cys Cys Leu Thr Val Val 50 55 78 Ser Phe Tyr Gln Val Ala Ala Leu Gln Gly Asp Leu Ala Ser Leu Arg 70 75 81 Ala Glu Leu Gln Gly His His Ala Glu Lys Leu Pro Ala Gly Ala Gly 90 84 Ala Pro Lys Ala Gly Leu Glu Glu Ala Pro Ala Val Thr Ala Gly Leu 87 Lys Ile Phe Glu Pro Pro Ala Pro Gly Glu Gly Asn Ser Ser Gln Asn 115 120 125 90 Ser Arg Asn Lys Arg Ala Val Gln Gly Pro Glu Glu Thr Val Thr Gln 135 140 93 Asp Cys Leu Gln Leu Ile Ala Asp Ser Glu Thr Pro Thr Ile Gln Lys 150 155 96 Gly Ser Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe Lys Arg Gly Ser 165 170 99 Ala Leu Glu Glu Lys Glu Asn Lys Ile Leu Val Lys Glu Thr Gly Tyr 100 180 185 102 Phe Phe Ile Tyr Gly Gln Val Leu Tyr Thr Asp Lys Thr Tyr Ala Met 195 105 Gly His Leu Ile Gln Arg Lys Lys Val His Val Phe Gly Asp Glu Leu 215 108 Ser Leu Val Thr Leu Phe Arg Cys Ile Gln Asn Met Pro Glu Thr Leu 235 109 225 230 111 Pro Asn Asn Ser Cys Tyr Ser Ala Gly Ile Ala Lys Leu Glu Gly Gly 245 250 114 Asp Gly Leu Gln Leu Ala Ile Pro Arg Glu Asn Ala Gln Ile Ser Leu 260 265 117 Asp Gly Asp Val Thr Phe Phe Gly Ala Leu Lys Leu Leu 275 280 118 123 <210> SEQ ID NO: 3 124 <211> LENGTH: 462 125 <212> TYPE: DNA 126 <213> ORGANISM: Homo sapiens 128 <220> FEATURE: 129 <221> NAME/KEY: CDS 130 <222> LOCATION: (1)..(462) 132 <400> SEQUENCE: 3 133 cgt gcc gtt cag ggt cca gaa gaa aca gtc act caa gac tgc ttg caa 48 134 Arg Ala Val Gln Gly Pro Glu Glu Thr Val Thr Gln Asp Cys Leu Gln 5 137 ctg att gca gac agt gaa aca cca act ata caa aaa gga tct tac aca 96 138 Leu Ile Ala Asp Ser Glu Thr Pro Thr Ile Gln Lys Gly Ser Tyr Thr

Input Set : E:\pg3600 Seq Listing.txt
Output Set: N:\CRF4\02082006\I868533.raw

139				20					25					30			
141	ttt	gtt	cca	tgg	ctt	ctc	agc	ttt	aaa	agg	gga	agt	gcc	cta	gaa	gaa	144
		-					-					_	Ăla		_	_	
143			35	-				40	-	_	-		45				
145	aaa	gag	aat	aaa	ata	ttg	gtc	aaa	gaa	act	ggt	tac	ttt	ttt	ata	tat	192
													Phe				
147	•	50		•			55	•			•	60				•	
149	qqt	caq	qtt	tta	tat	act	qat	aaq	acc	tac	qcc	atq	gga	cat	cta	att	240
													Gly				
151	65				-	70	-	•		•	75		•			80	
153	caq	agg	aaq	aaq	qtc	cat	qtc	ttt	qqq	gat	qaa	ttq	agt	ctq	qtq	act	288
	_		_	_	_		_			_	_	_	Ser	_	-		
155	•	_	•	•	85				•	90					95		
157	ttg	ttt	cqa	tqt	att	caa	aat	atq	cct	qaa	aca	cta	ccc	aat	aat	tcc	336
													Pro				
159			_	100					105					110			
161	tgc	tat	tca	qct	qqc	att	qca	aaa	ctq	qaa	qaa	qqa	gat	qqa	ctc	caa	384
													Āsp				
163	_	-	115		•			120				-	125	-			
165	ctt	gca	ata	cca	aga	gaa	aat	gca	caa	ata	tca	ctg	gat	gga	gat	gtc	432
		_			_	_		_				-	Āsp				
167		130			, -		135					140	-	-	-		
169	aca	ttt	ttt	ggt	qca	ttg	aaa	ctq	ctq	tga							462
			Phe							_							
171	145			_		150	-										
174	4 <210> SEQ ID NO: 4																
175	5 <211> LENGTH: 858																
176	6 <212> TYPE: DNA																
177	7 <213> ORGANISM: Homo sapiens																
179	<220	)> FI	EATUI	RE:													
180	<221	L> N2	AME/I	KEY:	CDS												
181	<222	2> L(	CATI														
183	<400			CON:	(1)	(85	58)										
184		0> SI	EQUE			(85	58)										
	atg		EQUE	ICE:	4			gag	cag	tca	cġc	ctt	act	tct	tgc	ctt	48
185		gat	EQUEI gac	NCE: tcc	4 aca	gaa	agg						act Thr				48
185 186		gat	EQUEI gac	NCE: tcc	4 aca	gaa	agg										48
186	Met 1	gat Asp	EQUEN gac Asp	NCE: tcc Ser	4 aca Thr 5	gaa Glu	agg Arg	Glu	Gln	Ser 10	Arg	Leu		Ser	Cys 15	Leu	<b>4</b> 8 96
186 188	Met 1 aag	gat Asp aaa	EQUEN gac Asp aga	NCE: tcc Ser gaa	4 aca Thr 5 gaa	gaa Glu atg	agg Arg aaa	Glu ctg	Gln aag	Ser 10 gag	Arg tgt	Leu gtt	Thr	Ser atc	Cys 15 ctc	Leu cca	
186 188	Met 1 aag	gat Asp aaa	EQUEN gac Asp aga	NCE: tcc Ser gaa	4 aca Thr 5 gaa	gaa Glu atg	agg Arg aaa	Glu ctg	Gln aag	Ser 10 gag	Arg tgt	Leu gtt	Thr	Ser atc	Cys 15 ctc	Leu cca	
186 188 189 190	Met 1 aag Lys	gat Asp aaa Lys	EQUEN gac Asp aga Arg	tcc Ser gaa Glu 20	4 aca Thr 5 gaa Glu	gaa Glu atg Met	agg Arg aaa Lys	Glu ctg Leu	Gln aag Lys 25	Ser 10 gag Glu	Arg tgt Cys	Leu gtt Val	Thr	Ser atc Ile 30	Cys 15 ctc Leu	Leu cca Pro	
186 188 189 190 192	Met 1 aag Lys cgg	gat Asp aaa Lys aag	eQUEN gac Asp aga Arg gaa	TCE: tcc Ser gaa Glu 20 agc	4 aca Thr 5 gaa Glu ccc	gaa Glu atg Met tct	agg Arg aaa Lys gtc	Glu ctg Leu cga	Gln aag Lys 25 tcc	Ser 10 gag Glu tcc	Arg tgt Cys aaa	Leu gtt Val gac	Thr tcc Ser	ser atc Ile 30 aag	Cys 15 ctc Leu ctg	Leu cca Pro ctg	96
186 189 190 192 193 194	Met 1 aag Lys cgg Arg	gat Asp aaa Lys aag Lys	EQUEN gac Asp aga Arg gaa Glu 35	TCE: tcc Ser gaa Glu 20 agc Ser	4 aca Thr 5 gaa Glu ccc Pro	gaa Glu atg Met tct Ser	agg Arg aaa Lys gtc Val	Glu ctg Leu cga Arg 40	Gln aag Lys 25 tcc Ser	Ser 10 gag Glu tcc Ser	Arg tgt Cys aaa Lys	Leu gtt Val gac Asp	Thr tcc Ser gga Gly 45	atc Ile 30 aag Lys	Cys 15 ctc Leu ctg Leu	cca Pro ctg Leu	96
186 189 190 192 193 194 196	Met 1 aag Lys cgg Arg	gat Asp aaa Lys aag Lys gca	EQUENT GAC ASP AGA Arg Glu 35 acc	tcc Ser gaa Glu 20 agc Ser ttg	aca Thr 5 gaa Glu ccc Pro	gaa Glu atg Met tct Ser	agg Arg aaa Lys gtc Val	Ctg Leu Cga Arg 40 ctg	Gln aag Lys 25 tcc Ser ctg	Ser 10 gag Glu tcc Ser	Arg tgt Cys aaa Lys tgc	Leu gtt Val gac Asp	Thr tcc ser gga Gly 45 ctc	ser atc Ile 30 aag Lys acg	Cys 15 ctc Leu ctg Leu	cca Pro ctg Leu	96
186 188 189 190 192 193 194 196	Met 1 aag Lys cgg Arg	gat Asp aaa Lys aag Lys gca Ala	EQUENT GAC ASP AGA Arg Glu 35 acc	tcc Ser gaa Glu 20 agc Ser ttg	aca Thr 5 gaa Glu ccc Pro	gaa Glu atg Met tct Ser	agg Arg aaa Lys gtc Val	Ctg Leu Cga Arg 40 ctg	Gln aag Lys 25 tcc Ser ctg	Ser 10 gag Glu tcc Ser	Arg tgt Cys aaa Lys tgc	Leu gtt Val gac Asp	Thr tcc Ser gga Gly 45	ser atc Ile 30 aag Lys acg	Cys 15 ctc Leu ctg Leu	cca Pro ctg Leu	96 144
186 188 189 190 192 193 194 196 197	Met 1 aag Lys cgg Arg gct Ala	gat Asp aaa Lys aag Lys gca Ala 50	eQUEN gac Asp aga Arg gaa Glu 35 acc Thr	tcc Ser gaa Glu 20 agc Ser ttg Leu	aca Thr 5 gaa Glu ccc Pro ctg Leu	gaa Glu atg Met tct Ser ctg Leu	agg Arg aaa Lys gtc Val gca Ala 55	Ctg Leu Cga Arg 40 Ctg Leu	Gln aag Lys 25 tcc Ser ctg Leu	Ser 10 gag Glu tcc Ser tct	tgt Cys aaa Lys tgc Cys	gtt Val gac Asp tgc Cys 60	Thr tcc Ser gga Gly 45 ctc Leu	ser atc Ile 30 aag Lys acg Thr	Cys 15 ctc Leu ctg Leu gtg Val	Leu cca Pro ctg Leu gtg Val	96 144
186 189 190 192 193 194 196 197 198 200	Met 1 aag Lys cgg Arg gct Ala tct	gat Asp aaa Lys aag Lys gca Ala 50	eQUENT gac Asp aga Arg gaa Glu 35 acc Thr	NCE: tcc Ser gaa Glu 20 agc Ser ttg Leu cag	aca Thr 5 gaa Glu ccc Pro ctg Leu gtg	gaa Glu atg Met tct Ser ctg Leu	agg Arg aaa Lys gtc Val gca Ala 55	Ctg Leu Cga Arg 40 Ctg Leu	aag Lys 25 tcc Ser ctg Leu	Ser 10 gag Glu tcc Ser tct Ser	tgt Cys aaa Lys tgc Cys	Leu gtt Val gac Asp tgc Cys 60 ctg	Thr tcc ser gga Gly 45 ctc Leu gcc	ser atc Ile 30 aag Lys acg Thr	Cys 15 ctc Leu ctg Leu gtg Val	Leu cca Pro ctg Leu gtg Val cgg	96 144
186 188 189 190 192 193 194 196 197 198 200 201	Met 1 aag Lys cgg Arg gct Ala tct Ser	gat Asp aaa Lys aag Lys gca Ala 50	eQUENT gac Asp aga Arg gaa Glu 35 acc Thr	NCE: tcc Ser gaa Glu 20 agc Ser ttg Leu cag	aca Thr 5 gaa Glu ccc Pro ctg Leu gtg	gaa Glu atg Met tct Ser ctg Leu	agg Arg aaa Lys gtc Val gca Ala 55	Ctg Leu Cga Arg 40 Ctg Leu	aag Lys 25 tcc Ser ctg Leu	Ser 10 gag Glu tcc Ser tct Ser	tgt Cys aaa Lys tgc Cys	Leu gtt Val gac Asp tgc Cys 60 ctg	Thr tcc Ser gga Gly 45 ctc Leu	ser atc Ile 30 aag Lys acg Thr	Cys 15 ctc Leu ctg Leu gtg Val	Leu cca Pro ctg Leu gtg Val cgg	96 144 192
186 188 189 190 192 193 194 196 197 198 200 201 202	Met 1 aag Lys cgg Arg gct Ala tct ser .65	gat Asp aaa Lys aag Lys gca Ala 50 ttc Phe	eQUENT gac Asp aga Arg gaa Glu 35 acc Thr	TCE: tcc Ser gaa Glu 20 agc Ser ttg Leu cag Gln	aca Thr 5 gaa Glu ccc Pro ctg Leu gtg Val	gaa Glu atg Met tct Ser ctg Leu gcc Ala 70	agg Arg aaa Lys gtc Val gca Ala 55 gcc Ala	Ctg Leu Cga Arg 40 Ctg Leu Ctg Leu	aag Lys 25 tcc Ser ctg Leu caa Gln	Ser 10 gag Glu tcc Ser tct Ser ggg Gly	tgt Cys aaa Lys tgc Cys gac Asp 75	Leu gtt Val gac Asp tgc Cys 60 ctg Leu	Thr tcc ser gga Gly 45 ctc Leu gcc	ser atc Ile 30 aag Lys acg Thr agc ser	Cys 15 ctc Leu ctg Leu gtg Val ctc Leu	Leu  cca Pro  ctg Leu  gtg Val  cgg Arg 80	96 144

Input Set : E:\pg3600 Seq Listing.txt
Output Set: N:\CRF4\02082006\1868533.raw

205	Ala	Glu	Leu	Gln	Gly	His	His	Ala	Glu	Lys	Leu	Pro	Ala	Gly	Ala	Gly	
206					85					90					95		
	gcc																336
	Ala	Pro	Lys		Gly	Leu	Glu	Glu		Pro	Ala	Val	Thr		Gly	Leu	
210				100					105					110			
	aaa																384
	Lys	ше		GIu	Pro	Pro	Ala		GIY	GIu	GIY	Asn		Ser	GIn	Asn	
214			115			~~~		120	~~+		~~~	~	125	~+~	<del>-</del>		422
	agc	_		_	_	_	_	_			_	_		_			432
217	Ser	130	ASII	гух	Arg	міа	135	GIII	Gry	PIO	GIU	140	TIIL	Val	1111	GIII	
	gac		tta	caa	cta	att		gac	agt	gaa	aca		act	ata	caa	222	480
	Asp																400
	145	Cyb	200	01	Leu	150	1114	тор	DCI	014	155			110	01	160	
	gga	tct	tac	aca	ttt		cca	taa	ctt	ctc		ttt	aaa	agg	gga		528
	Gly																
226	- 4		•		165			•		170			-	-	175		
228	gcc	cta	gaa	gaa	aaa	gag	aat	aaa	ata	ttg	gtc	aaa	gaa	act	ggt	tac	576
229	Āla	Leu	Glu	Glu	Lys	Glu	Asn	Lys	Ile	Leu	Val	Lys	Glu	Thr	Gly	Tyr	
230				180					185					190			
232	ttt	ttt	ata	tat	ggt	cag	gtt	tta	tat	act	gat	aag	acc	tac	gcc	atg	624
233	Phe	Phe	Ile	Tyr	Gly	Gln	Val	Leu	Tyr	Thr	Asp	Lys	Thr	Tyr	Ala	Met	
234			195					200					205				
	gga				_		_	_	_		_			_	_	_	672
	Gly		Leu	Ile	Gln	Arg	_	Lys	Val	His	Val		Gly	Asp	Glu	Leu	
238		210					215					220					
	agt	_			_		_	_				_		_			720
	Ser 225	ьeu	vai	Thr	ьeu		Arg	Cys	тте	GIN	235	мет	Pro	GIU	Thr		
	CCC	22+	22+	+ 00	+~~	230	+ = =	aat	~~~	2++			ata	~~~	~~~	240	768
	Pro				_			_			_		_	_	_		700
246	110	non.	TI III	JCI	245	- 7 -	JCI	niu	Cly	250	niu	Lys	Dea	OIU	255	Cly	
	gat	ασa	ctc	caa		gca	ata	cca	aga		aat	qca	caa	ata		cta	816
	Asp					-			-	-		-				-	
250				260					265					270			
252	gat	gga	gat	gtc	aca	ttt	ttt	ggt	gca	ttg	aaa	ctg	ctg	tga			858
	Asp													_			
254	_	-	275					280			-		285				
260	<210	)> SE	EQ II	ONO:	: 5												
261	<213	L> LE	ENGTI	I: 14	14												
262	<212	?> T)	PE:	PRT													
263	<213	3 > OF	RGAN	ISM:	Mus	sp.											
	<400		-														
	Ile	Ile	Gln	Asp	Cys	Leu	Gln	Leu	Ile	Ala	Asp	Ser	Asp	Thr	Pro	Thr	
267	1	_	_		5	_				_10				_	15	_	
	Ile	Arg	Lys	_	Thr	Tyr	Thr	Phe		Pro	Trp	Leu	Leu		Phe	ŗàs	
270	*	<b>~</b> 1		20	• .	<b>~</b> ?	<b>~</b> 1	<b>.</b> .	25		• -	<b>-</b> 7	77. 3	30	<b>3</b> - · ·	al.	
	Arg	стА		АТа	ьeu	Glu	GIU		GIU	Asn	ьуs	тте		val	Arg	GIN	
273			35					40					45				

Input Set : E:\pg3600 Seq Listing.txt
Output Set: N:\CRF4\02082006\1868533.raw

275 Thr Gly Tyr Phe Phe Ile Tyr Ser Gln Val Leu Tyr Thr Asp Pro Ile 276 50 55 278 Phe Ala Met Gly His Val Ile Gln Arg Lys Lys Val His Val Phe Gly 281 Asp Glu Leu Ser Leu Val Thr Leu Phe Arg Cys Ile Gln Asn Met Pro 85 284 Lys Thr Leu Pro Asn Asn Ser Cys Tyr Ser Ala Gly Ile Ala Arg Leu 105 100 287 Glu Glu Gly Asp Glu Ile Gln Leu Ala Ile Pro Arg Glu Asn Ala Gln 120 290 Ile Ser Arg Asn Gly Asp Asp Thr Phe Phe Gly Ala Leu Lys Leu Leu 130 135 294 <210> SEQ ID NO: 6 295 <211> LENGTH: 309 296 <212> TYPE: PRT 297 <213> ORGANISM: Mus sp. 299 <400> SEQUENCE: 6 300 Met Asp Glu Ser Ala Lys Thr Leu Pro Pro Pro Cys Leu Cys Phe Cys 303 Ser Glu Lys Gly Glu Asp Met Lys Val Gly Tyr Asp Pro Ile Thr Pro 306 Gln Lys Glu Glu Gly Ala Trp Phe Gly Ile Cys Arg Asp Gly Arg Leu 35 40 309 Leu Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser Ser Phe Thr Ala 55 312 Met Ser Leu Tyr Gln Leu Ala Ala Leu Gln Ala Asp Leu Met Asn Leu 315 Arg Met Glu Leu Gln Ser Tyr Arg Gly Ser Ala Thr Pro Ala Ala Ala 318 Gly Ala Pro Glu Leu Thr Ala Gly Val Lys Leu Leu Thr Pro Ala Ala 100 105 321 Pro Arg Pro His Asn Ser Ser Arg Gly His Arg Asn Arg Arg Ala Phe 115 120 324 Gln Gly Pro Glu Glu Thr Glu Gln Asp Val Asp Leu Ser Ala Pro Pro 135 327 Ala Pro Cys Leu Pro Gly Cys Arg His Ser Gln His Asp Asp Asn Gly 150 155 328 145 330 Met Asn Leu Arg Asn Ile Ile Gln Asp Cys Leu Gln Leu Ile Ala Asp 165 170 333 Ser Asp Thr Pro Thr Ile Arg Lys Gly Thr Tyr Thr Phe Val Pro Trp 180 185 336 Leu Leu Ser Phe Lys Arg Gly Asn Ala Leu Glu Glu Lys Glu Asn Lys 339 Ile Val Val Arg Gln Thr Gly Tyr Phe Phe Ile Tyr Ser Gln Val Leu 215 220 342 Tyr Thr Asp Pro Ile Phe Ala Met Gly His Val Ile Gln Arg Lys Lys 230 235 345 Val His Val Phe Gly Asp Glu Leu Ser Leu Val Thr Leu Phe Arg Cys 346 245 250

VERIFICATION SUMMARY

DATE: 02/08/2006 TIME: 12:04:21

PATENT APPLICATION: US/09/868,533

Input Set : E:\pg3600 Seq Listing.txt
Output Set: N:\CRF4\02082006\1868533.raw

L:14 M:270 C: Current Application Number differs, Replaced Current Application Number

L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date